

WE CLAIM:

1. An aqueous biological fluid preserving composition suitable for preservation of a biological fluid specimen consisting essentially of a chelating agent and a cell lysing amount of a cell lysing agent in water.

5 2. The composition of claim 1 wherein the chelating agent is a calcium chelating agent.

3. The composition of claim 1 wherein the chelating agent is EDTA.

10 4. The composition of claim 1 wherein the cell lysing agent is a C₁ - C₄ alcohol.

5. The composition of claim 4 wherein the cell lysing agent is ethanol.

15 6. The composition of claim 1 wherein the aqueous biological fluid preserving composition further includes a preservative.

7. The composition of claim 6 wherein the preservative is sodium azide.

8. The composition of claim 1 wherein the aqueous biological fluid preserving composition further includes an antifreeze agent.

20 9. The composition of claim 8 wherein the antifreeze agent is an organic polyol.

10. The composition of claim 9 wherein the organic polyol is a C₁ - C₁₀ polyol.

25 11. The composition of claim 8 wherein the antifreeze agent is ethylene glycol.

12. An aqueous biological fluid preserving composition suitable for preservation of a biological fluid specimen consisting essentially of:

- a) about 0.05 to about 0.5 weight percent of a chelating agent;
- b) about 5 to about 25 weight percent of a cell lysing agent;
- c) up to about 0.1 weight percent of a preservative; and
- d) the remainder being water.

13. The composition of claim 12 wherein the chelating agent is a calcium chelating agent.

14. The composition of claim 12 wherein the chelating agent is EDTA.

5 15. The composition of claim 12 wherein the cell lysing agent is a C₁ - C₄ alcohol.

16. The composition of claim 15 wherein the cell lysing agent is ethanol.

10 17. The composition of claim 12 wherein the preservative is present in an amount in the range of about 0.01 to about 0.03 weight percent.

18. The composition of claim 17 wherein the preservative is sodium azide.

15 19. The composition of claim 12 wherein the aqueous biological fluid preserving composition further includes up to about 50 weight percent of an antifreeze agent.

20 20. The composition of claim 19 wherein the antifreeze agent is an organic polyol.

21. The composition of claim 20 wherein the organic polyol is a C₁ - C₁₀ polyol.

20 22. The composition of claim 19 wherein the antifreeze agent is ethylene glycol.

23. A method of preserving a protein-containing biological fluid specimen comprising the sequential steps of:

25 a) providing a sealable container, suitable for storing or transporting a biological fluid sample;

b) combining in said container a biological fluid specimen and an aqueous biological fluid preserving solution consisting essentially of a chelating agent and a cell lysing amount of a cell lysing agent in water; and

c) sealing the container.

30 24. The method of claim 23 wherein the biological fluid specimen is admixed with about 0.5 to about 8 volumes of the aqueous preservative solution, based on the volume of the specimen.

25. The method of claim 23 wherein the chelating agent is a calcium chelating agent.

26. The method of claim 23 wherein the cell lysing agent is a C₁ - C₄ alcohol.

5 27. The method of claim 23 wherein the aqueous biological fluid preserving solution further includes a preservative.

28. The method of claim 27 wherein the preservative is sodium azide.

10 29. The method of claim 23 wherein the aqueous biological fluid preserving solution further includes an antifreeze agent.

30. The method of claim 29 wherein the antifreeze agent is a C₁ - C₁₀ polyol.

31. An article of manufacture comprising an aqueous biological fluid preserving composition of claim 1 in packaged form.

15 32. An article of manufacture comprising an aqueous biological fluid preserving composition of claim 12 in packaged form.

33. A biological fluid test kit comprising a sealable biological fluid collecting receptacle containing an aqueous biological fluid preserving composition of claim 1, packaged with instructional materials describing how to collect the biological specimen and instructions for delivery of the collected specimen to a laboratory for analysis.

20 34. A biological fluid test kit comprising a sealable biological fluid collecting receptacle containing a biological fluid preserving composition of claim 12, packaged with instructional materials describing how to collect the biological specimen and instructions for delivery of the collected specimen to a laboratory for analysis.

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